Amendments to the Drawings

The attached one sheet of drawing includes changes to Fig. 3. The sheet replaces the original sheets including the same figure.

Claims 1-14 are pending in the case. All claims stand rejected. In the present submission, claims 1, 5, 8 and 12 have been amended. Applicant has also amended the specification to update references to related applications. Reconsideration is respectfully requested.

Drawing Objections

Figure 3 has been amended to include the "Prior Art" legend as required by the Examiner. Withdrawal of the drawing objections is respectfully requested.

Specification

The Examiner objected to the specification because application numbers for referenced patent applications were not included. In the present submission, the specification has been amended and all application serial numbers have been updated.

§103(a) Rejection of Claims 1-7

Claims 1 and 2 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Miller et al. (U.S. Patent Publication No. 2005/0185055; hereinafter "Miller") in view of Shaw et al. (US Patent Publication No. 2003/0021488; hereinafter "Shaw"). The Examiner contends that Miller in combination with Shaw disclose every limitations of the claims. Applicant respectfully traverses the rejection.

The Examiner relied on Miller for describing a digital imaging system with tone correction in Figures 1A, 5 and 8. The Examiner then relied on Shaw for describing using a pixel mask and a blending mask in the manner of the claimed invention.

Shaw describes a tone correction system where "a digital image is initially filtered to obtain a corresponding locally averaged value for each pixel value of the image... Shadow and highlight values are obtained from selected shadow and highlight functions, respectively, using the locally averaged values. A tone function is derived from each of the shadow an highlight values for each pixel. Each pixel value of the image is then remapped according to its derived shadow and highlight tone functions [to obtain the tone corrected image]." (See

Abstract of Shaw.)   Shaw actually does not describe the use of a pixel mask. Instead, the

digital image is used directly and filtered to obtain the locally averaged value for each pixel

value. See Figure 1, block 10 of Shaw ("Filter each pixel value in image data to obtain a

corresponding locally averaged value" and also paragraphs [0021] to [0022] of Shaw.

Claim 1

Claim 1, as amended, recites:

> 1. A digital imaging system, comprising:
> an image sensor comprising a two-dimensional array of pixel elements, said image sensor outputting digital signals as pixel data representing an image of a scene;
> a frame buffer, in communication with said image sensor, coupled to store said pixel data provided by said image sensor; and
> a tone correction circuit coupled to receive pixel data from said frame buffer and compute tone corrected pixel data using one or more tone correction curves,
> wherein said tone correction circuit computes tone corrected pixel data for a first pixel by generating a pixel mask for an mxn neighborhood of pixels surrounding said first pixel, **the pixel mask classifying the mxn neighborhood of pixels to a first value and a second value according to one or more threshold values**, applying a blending mask of weight factors to said pixel mask and computing a selector value based on said pixel mask and weight factors associated with said blending mask, said selector value being used to derive a first tone correction curve for use to compute said tone corrected pixel data for said first pixel; and
> wherein **the selector value is computed by counting the number of first values in the pixel mask corresponding to a respective weight factor in the blending mask, multiplying each count value by the respective weight factor, and summing the count-weight factor products to obtain the selector value**.
> (Emphasis added.)

Claim 1 is patentable over Miller and Shaw at least by reciting "the pixel mask classifying the

mxn neighborhood of pixels to a first value and a second value according to one or more

threshold values" and "the selector value is computed by counting the number of first values

in the pixel mask corresponding to a respective weight factor in the blending mask,

multiplying each count value by the respective weight factor, and summing the count-weight

factor products to obtain the selector value." Shaw does not teach or suggest generating a

pixel mask where the pixel values are classified to a first and a second value. Furthermore, Shaw does not teach or suggest computing a selector value as recited in amended claim 1.

For at least the above reasons, claim 1 is patentable over Miller and Shaw, alone or in combination.

Claims 2-7

Claim 2, dependent upon claim 1, is patentable over Miller and Shaw for at least the same reasons claim 1 is patentable.

Claims 3 and 4 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Miller in view of Shaw and further in view of Kraft (U.S. Patent Publication No. 2002/0141640). Claims 3-4, dependent upon claim 1, are patentable over Miller and Shaw for at least the same reasons claim 1 is patentable. Kraft does not cure the deficiencies of Miller and Shaw. Therefore, claims 3-4 are patentable over all of the cited references.

Claim 5 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Miller in view of Shaw and further in view of Tai (U.S. Patent No. 5,185,674). Claim 5, dependent upon claim 1, is patentable over Miller and Shaw for at least the same reasons claim 1 is patentable. Tai does not cure the deficiencies of Miller and Shaw. Therefore, claim 5 is patentable over all of the cited references. Claim 5 has been amended to define the first value as a logical "1" and the second value as a logical "0".

Claim 6 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Miller in view of Shaw and further in view of Goto et al. (U.S. Patent Publication No. 2003/0133607). Claim 6, dependent upon claim 1, is patentable over Miller and Shaw for at least the same reasons claim 1 is patentable. Goto does not cure the deficiencies of Miller and Shaw. Therefore, claim 6 is patentable over all of the cited references.

Claim 7 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Miller in view of Shaw and further in view of Uchino et al. (U.S. Patent No. 6,813,040). Claim 7, dependent upon claim 1, is patentable over Miller and Shaw for at least the same reasons

claim 1 is patentable. Uchino does not cure the deficiencies of Miller and Shaw. Therefore, claim 7 is patentable over all of the cited references.

§103(a) Rejection of Claims 8-14

Claim 8 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Miller in view of Shaw and Tai. Applicant respectfully traverses the rejection.

Claim 8

Claim 8, as amended, is patentable over Miller, Shaw and Tai at least by reciting "computing a selector value based on said pixel mask and weight factors associated with said blending mask, wherein computing the selector value comprises: counting the number of first values in the pixel mask corresponding to a respective weight factor in the blending mask, multiplying each count value by the respective weight factor, and summing the count-weight factor products to obtain the selector value." The cited references do not teach or suggest computing a selector value in the same manner as recited in claim 8.

For at least the above reasons, claim 8 is patentable over Miller, Shaw and Tai, alone or in combination.

Claims 9-14

Claims 9-14, dependent upon claim 8, are patentable over Miller, Shaw and Tai for at least the same reasons claim 8 is patentable. The cited references Kraft, Goto, and Uchino do not cure the deficiencies of Miller, Shaw and Tai. Therefore, claims 9-14 are patentable over all of the cited references. Claim 12 has been amended to define the first value as a logical "1" and the second value as a logical "0".

For the above reasons, claims 1-14 are patentable over the cited references and withdrawal of the §103(a) of the claims is respectfully requested.

Serial No. 10/634,296

CONCLUSION

In the present submission, claims 1, 5, 8 and 12 have been amended. The amendments to the specification made herein deal only with clerical matters. No new matter has been entered. For the reasons stated above, claims 1-14 are patentable over the cited references and passage of the present case to allowance is respectfully requested. If the Examiner would like to discuss any aspect of this application, the Examiner is invited to contact the undersigned at (408) 382-0480.

Certificate of Electronic Transmission
I hereby certify that this correspondence is being submitted electronically to the United States Patent and Trademark Office using EFS-Web on the date shown below.

/Carmen C Cook/	March 8, 2007
Attorney for Applicant(s)	Date of Signature

Respectfully submitted,

/Carmen C Cook/

Carmen C. Cook
Attorney for Applicant(s)
Reg. No. 42,433
Patent Law Group LLP
2635 N. First St.
Suite 223
San Jose, CA 95134
Tel (408) 382-0480 x208
Fax (408) 382-0481

Serial No. 10/634,296